

REMARKS

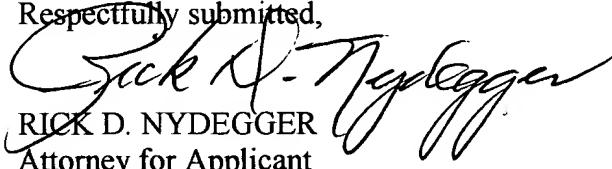
Applicants express appreciation to the Examiner for the courtesies extended during the recent interview held on Feb. 7, 2003. The claim amendments made by this paper are consistent with the proposals discussed during the interview. In particular, all of the claims (e.g. claims 7 – 15, 17, 19, 21 – 26, 29 and 43 – 46) that were pending have been cancelled without prejudice, and new claims 47 – 64 have been added (claims 47, 54, 56, 57 and 61 are independent claims).

In the Office Action claims 7 – 15, 17, 19, 21 – 26, 29 and 43 – 46 were rejected under 7 – 15, 17, 19, 21 – 26, 29 and 43 – 35 U.S.C. § 103(a) as obvious principally over U.S. Patent No. 5,119,476 (“Texier”), taken in combination with U.S. Patent No. 5,404,294 (“Karnik”) and/or the Dayton article (“Dayton”) (PC Week Oct. 1, 1990, volume 7 no. 39). Since those claims have been cancelled herein, the rejections of record are moot.

As proposed during the interview, new claims 47 – 64 are based on the claims in the issued parent case (now U.S. Patent No. 5,557,723). Those claims have been slightly broadened as shown by the accompanying red-line version of the claims, a copy of which was provided to the Examiner during the interview. Texier was of record in the parent case, and as noted in the interview summary, the proposed new claims “appear to resolve the rejections of record.” Accordingly, applicants respectfully request entry and favorable consideration of the new claims presented.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney.

Dated this 26th day of February, 2003.

Respectfully submitted,

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Changes to Claims From Parent Case

1. An ~~electronic mail~~ data processing system for displaying and receiving data through user-defined custom forms, ~~the mail system for transporting mail messages from one user of the mail system to another user of the mail system~~, each form having a plurality of fields, each field representing a form component and having an associated description indicating characteristics of the field for use in displaying the field and in utilizing the field to obtain and ~~transport~~ present the data ~~in the electronic mail system~~ and a standard behavior indicating standard operations associated with the field, the data processing electronic mail system comprising:

means for storing a form data structure for each of a plurality of forms, each form data structure having the description of the fields of the form and having a form control procedure customized to control behavior of the form, wherein the behavior of the form indicates operations associated with the form;

a transaction event processor that includes

means for selecting one of the plurality of forms;

means for retrieving the form data structure for the selected form;

means for receiving input from a user of the computer system;

means for, in response to receiving the user input, invoking the form control procedure of the retrieved form data structure whereby the form control procedure performs a custom behavior for the fields of the form, the custom behavior indicating user-defined operations associated with the fields of the form; and

means for performing the standard behavior for the fields of the form when custom behavior is not performed;

means for packing the user input into a ~~mail message~~ user-input data structure that can be accessed to present the user input; and

means for ~~transporting the mail message presenting user input from the user-input data structure to a designated user of the mail system in accordance with~~ wherein the designated user can display the user input using a form data structure for displaying the user input.

2. The electronic mail data processing system of claim 1 wherein the means for invoking the form control procedure includes means for invoking the form control procedure of the retrieved form data structure to initially display each of the plurality of fields on a display device.

3. The ~~electronic mail~~ data processing system of claim 1 wherein the means for invoking the form control procedure includes means for invoking the form control procedure after receiving user input and before performing the standard behavior for the field to which the user input is directed.

4. The ~~electronic mail~~ data processing system of claim 3 wherein the form control procedure returns an indication to suppress the performing of the standard behavior for the field to which the user input is directed.

5. The ~~electronic mail~~ data processing system of claim 3 wherein the forms control procedure returns an indication to perform the standard behavior for the field to which the user input is directed and including means for performing the standard behavior for the field to which the user input is directed.

6. The ~~electronic mail~~ data processing system of claim 1 wherein the means for invoking the form control procedure includes means for invoking the form control procedure after performing the standard behavior for the field to which the user input is directed.

7. The ~~electronic mail~~ data processing system of claim 1 wherein the means for invoking the form control procedure includes:

means for invoking the form control procedure once for each field of the form to effect the display of the fields of the form;

means for invoking the form control procedure upon receiving user input, passing to the form control procedure an indication of the field to which the user input is directed, and returning from the form control procedure an indication whether to perform the standard behavior for the field to which the user input is directed;

means for invoking the form control procedure after determining whether to perform the standard behavior for the field to which the user input is directed and passing to the form control procedure an indication of the field to which the user input is directed

whereby the form control procedure effects the customizing of the behavior of the form by adding to and overriding the standard behavior of the fields.

8. A method for ~~sending~~ presenting data collected ~~using~~ from custom forms in an ~~electronic mail~~ data processing system, the ~~electronic mail~~ data processing system ~~including~~ for transporting mail messages, the ~~electronic mail~~ data processing system having a display device for displaying the forms; and an input device for receiving input data, each form

having a plurality of fields, each field representing a form component and having an associated description indicating characteristics of the field for use in displaying the field and utilizing the field to obtain and ~~transport present the data in the electronic mail system~~ and a standard behavior indicating standard operations associated with the field, the method comprising the steps of:

retrieving a form data structure for a form, to be displayed, the form data structure having a description of each field of the form and having a form control procedure, the form control procedure for providing custom behavior for the fields of the form, the custom behavior indicating user-defined operations associated with the fields of the form;

for each field of the form, invoking the form control procedure of the retrieved form data structure and specifying the field wherein the form control procedure controls the displaying of the specified field;

for each of a plurality of fields of the form, receiving input data through the input device, the input data being data directed to the field;

for each received input data, invoking the form control procedure of the retrieved form data structure specifying the input data and an indication of field to which the input data is directed, so that the form control procedure can override the standard behavior of the field;

for each field of the form, invoking the form control procedure of the retrieved form data structure specifying the field wherein the data directed to the field is prepared for ~~transport presentation~~; and

~~presenting transporting the prepared data according to the form control procedure within the electronic mail system.~~

9. The method of claim 8, including the step of ~~transporting processing~~ the retrieved form data structure along with the prepared data so that a recipient of ~~transported the processed~~ data can use the form data structure to display the ~~transported processed~~ data.

10. A method of collecting data in an ~~electronic mail~~ data processing system of a computer system, the computer system having a display device for displaying a plurality of forms developed by a user of the ~~mail~~ data processing system and an input device for inputting data, each form having a plurality of fields, each field representing a form component and having an associated description indicating characteristics of the field for use in displaying the field and utilizing the field to obtain the data and a standard behavior indicating standard operations associated with the field, the method comprising the steps of:

for each of the forms, storing a form control procedure and the description of the fields of the form in a form data structure, the form control procedure for overriding the standard behavior associated with each of the fields;

selecting one of the plurality of forms;

retrieving form data structure for the selected form;

for each of the fields of the selected form, invoking the form control procedure of the retrieved form data structure to control the displaying of the field on the display device;

for each of a plurality of fields of the selected form,

receiving user input from the input device, the user input being directed to the field;

invoking the form control procedure of the retrieved form data structure and passing to the form control procedure the received user input and an indication of the field to which the user input is directed wherein the form control procedure determines whether to override the standard behavior of the field to which the user input is directed,

when the form control procedure determines to override the standard behavior, performs a custom behavior for the field to which the user input is directed, the custom behavior indicating user-defined operations associated with the fields of the form, and

returns an indication as to whether the standard behavior has been overridden; and

when the standard behavior for the field has not been overridden, performing the standard behavior.

11. A method in ~~aelectronic mail~~ data processing system of a computer system for storing a custom form, the custom form having a plurality of fields, each field representing a form component and having a description indicating characteristics of the field for use in displaying the field and in utilizing the field to obtain and ~~transport~~ present the data and a standard behavior indicating standard operations associated with each field, the method comprising the steps of:

storing a form header containing data describing a window into which fields are to be displayed on a display device;

for each field, storing a field object having the description of the field; and

storing a form control procedure, the form control procedure for receiving data that is input into a field and an indication of the field, for determining whether to perform a custom behavior for the field, for performing the custom behavior for the field, and returning an indication as to whether the standard behavior for the field is to be performed, the custom behavior indicating user-defined operations associated with the fields of the form.

12. The method of claim 11 wherein the step of storing a form header comprises the steps of:

storing a primary key for retrieving the form header and wherein the primary key designates a location of the form header;

storing form flags for specifying the window appearance;

storing form coordinates specifying the position and size of the window; and

storing a character string for use as a form title.

13. The method of claim 11 wherein the step of storing a field object comprises the steps of:

storing a primary key for retrieving the field object and wherein the primary key designates a location of the field object;

storing a secondary key for providing an alternative means for retrieving the field object and wherein the seconding/key designates a location of a unique identifier for the field;

storing a field type;

storing attributes of the field;

storing coordinates of the field; and

storing font characteristics of the field.

14. The method of claim 11 wherein the step of storing a form control procedure comprises the steps of:

storing a primary key for retrieving the form control procedure and wherein the primary key designates a location of the form control procedure; and

storing a computer code that implements the custom behavior of the fields.

15. A method in an ~~electronic mail~~ data processing system for inputting ~~an electronic mail message using user input~~ into a custom form, the ~~electronic mail message user input~~ for being transported through the ~~electronic mail system~~ and for being displayed by a recipient of the ~~electronic mail message user input~~, the ~~electronic mail data processing~~ system having a plurality of field types, each field type having a standard behavior, the method comprising the steps of:

retrieving a description of each field to be displayed on the custom form, the description indicating characteristics of the field for use in displaying the field and in utilizing the field to obtain and ~~transport present~~ the user input at data through the ~~electronic mail data processing~~ system;

retrieving a form control procedure for the custom form, the form control procedure for receiving data directed to a field of the form and an indication of the field to which the data is directed;

displaying the custom form on a display device;

receiving data directed to a field of the displayed custom form;

invoking the retrieved form control procedure and passing to the form control procedure the received data and an indication of the field to which the data is directed;

under control of the form control procedure,

performing a custom behavior for the field to which the data is directed, the custom behavior including modifying the display of a field other than the field to which the data is directed; and

returning an indication whether to perform the standard behavior for the field to which the data is directed; and

when the returned indication indicates to perform the standard behavior for the field, performing the standard behavior for the field to which the data is directed.

16. The method of claim 15 including the steps of:

re-invoking the retrieved form control procedure and passing to the retrieved form control procedure an indication of the field to which the data is directed;

under control of the re-invoked form control procedure, performing further custom behavior for the field to which the data is directed.

17. The method of claim 15 wherein the step of displaying the custom form further includes

for each field of the form,

invoking the form control procedure and passing to the form control procedure an indication of the field which identifies the field; and

under control of the form control procedure, displaying the indicated field.

~~18. The method of claim 15 including the steps of:~~

~~for each field of the form,~~

~~invoking the form control procedure and passing to the form control procedure an indication of the field which identifies the field; and~~

~~under control of the form control procedure, packaging data for the field into an electronic mail message; and~~

~~transporting the electronic mail message through the electronic mail system.~~

~~189. The method of claim 15 including the steps of:~~

~~packaging the data for the fields of the form into an data structureelectronic mail message;~~

~~packaging the retrieved description and the retrieved form control procedure into the electronic mail messagedata structure; and~~

~~transporting processing the electronic mail message through the electronic mail data structure system whereby such that the recipient of the electronic mail messagedata structure uses the packaged description and form control procedure to display the data for the fields of the form.~~